

**WHAT IS CLAIMED IS:**

- 1      1. A method comprising:
  - 2            (a) automatically and repeatedly collecting data indicative of an operating state of a machine, and
  - 4            (b) automatically transmitting information related to the collected data to a location remote from the computer in the form of electronic mail messages complying with a standard electronic mail messaging protocol.
- 1      2. The method of claim 1 also including:
  - 2            (a) receiving the electronic mail messages at computer, and
  - 3            (b) analyzing the information at the computer to derive performance measures.
- 1      3. The method of claim 2 also including
  - 2            (a) generating a report embodying the performance measures, and
  - 3            (b) making the report available electronically.
- 1      4. The method of claim 3 in which
  - 2            (a) the report comprises a natural language document expressed in a natural language format.
- 1      5. The method of claim 3 in which the report is made available on a web site.
- 2      6. The method of claim 1 in which the machine comprises a network server, desktop computer, or an intelligent appliance.
- 1      7. The method of claim 1, in which the standard electronic mail messaging protocol comprises a Simple Mail Transfer Protocol.
- 1      8. The method of claim 1, in which the collected data includes a time-ordered sequence of performance measurements taken at fixed time intervals.

- 1       9. The method of claim 1, in which the collected data includes measurements of at least one  
2       of CPU usage, process queue length, memory usage, memory paging rate, disk usage,  
3       network usage, paging space occupancy, file system occupancy, and process resource  
4       usage.
- 1       10. The method of claim 1, in which the information related to the collected data is  
2       compressed and encrypted for inclusion in the electronic mail message.
- 1       11. The method of claim 1, in which the collected data is collected from at least one of: a  
2       registry, a system call, a virtual file system, a virtual device, and an input/output control  
3       call to a device.
- 1       12. An article comprising a machine readable medium on which are tangibly stored machine-  
2       executable instructions for monitoring a machine, the instructions being operable to cause  
3       a machine to:  
4           (a) automatically and repeatedly collect data indicative of an operating state of the  
5              machine, and  
6           (b) automatically transmit information related to the collected data to a location remote  
7              from the machine in the form of electronic mail messages complying with a  
8              standard electronic mail messaging protocol.
- 1       13. The computer program product of claim 12 in which the computer comprises a network  
2       server.
- 1       14. The article of claim 12, in which the standard electronic mail messaging protocol  
2       comprises a Simple Mail Transfer Protocol.
- 1       15. The article of claim 12, in which the collected data includes a time-ordered sequence of  
2       performance measurements taken at fixed time intervals.
- 1       16. The article of claim 12, in which the collected data includes measurements of at least one  
2       of CPU usage, process queue length, memory usage, memory paging rate, disk usage,

3 network usage, paging space occupancy, file system occupancy, and process resource  
4 usage.

1 17. The article of claim 12, in which the information related to the collected data is  
2 compressed and encrypted for inclusion in the electronic mail message.

1 18. The article of claim 12, in which the collected data is collected from at least one of: a  
2 registry, a system call, a virtual file system, a virtual device, and an input/output control  
3 call to a device.

1 19. A method comprising

2 (a) automatically and repeatedly receiving electronic mail messages that include  
3 information related to remotely collected data indicative of a performance of a  
4 machine, the electronic mail messages complying with a standard electronic mail  
5 messaging protocol, and

6 (b) automatically analyzing the information to determine the performance of the  
7 machine.

1 20. The method of claim 19 further comprising:

2 (a) extracting the information from the electronic mail messages.

1 21. The method of claim 20 further comprising generating a natural language report based on  
2 the analysis.

1 22. The method of claim 19, further comprising:

2 generating an electronic mail message that includes the report; and  
3 transmitting the electronic mail message over a network.

1 23. The method of claim 19, wherein the collected data includes at least one time ordered  
2 sequence of performance measurements and wherein:

3 analyzing the collected data includes comparing at least some of the collected data  
4 with a corresponding threshold value to determine whether the performance  
5 measurements are within a range of acceptable values.

- 1        24. The method of claim 23, wherein generating the performance report includes:
    - 2                selecting an information item based on the comparison of the performance
    - 3                measurement; and
    - 4                adding the selected information item to the performance report.
  - 1        25. The method of claim 23 wherein:
    - 2                analyzing the collected data includes determining the number of performance
    - 3                measurements that are within the range of acceptable values; and
    - 4                selecting the information item is further based on the number of performance
    - 5                measurements that are within the range of acceptable values.
  - 1        26. The method of claim 23 wherein the item of information includes a natural language
  - 2                sentence.
  - 1        27. The method of claim 26 wherein the item of information includes at least one of a
  - 2                measurement value or the threshold value.
  - 1        28. The method of claim 26 wherein at least part of the natural language sentence is
  - 2                enhanced to draw attention to the sentence.
  - 1        29. The method of claim 28 wherein the part of the natural language sentence is enhanced by
  - 2                at least one of bold typeface, italicized typeface, colored typeface, underlining, and a
  - 3                different font size.
  - 1        30. The method of claim 23 wherein the item of information includes a graphical display.
  - 1        31. The method of claim 26 wherein at least part of the natural language sentence is a
  - 2                hyperlink to more detailed information about a section of the sequence of performance
  - 3                measurements.
  - 1        32. An article comprising a machine readable medium on which are tangibly stored machine-
  - 2                executable instructions for monitoring a remote machine, the instructions being operable
  - 3                to cause a machine to:

- 4       (a) automatically and repeatedly receive electronic mail messages that include  
5              information related to remotely collected data indicative of a performance of the  
6              remote machine, the electronic mail messages complying with a standard electronic  
7              mail messaging protocol, and  
  
8       (b) automatically analyze the information to determine the performance of the remote  
9              machine.

1     33. The article of claim 32, wherein the instructions further cause the processor to:

- 2       (a) extract the information from the electronic mail messages.

1     34. The article of claim 33 wherein the instructions further cause the processor to generate a  
2              natural language report based on the analysis.

1     35. The article of claim 32, wherein the instructions further cause the processor to:  
2              generate an electronic mail message that includes the report; and  
3              transmit the electronic mail message over a network.

1     36. The article of claim 32, wherein the collected data includes at least one time ordered  
2              sequence of performance measurements and wherein:

3              analyzing the collected data includes comparing at least some of the performance  
4              measurements with a corresponding threshold value to determine whether the  
5              performance measurements are within a range of acceptable values.

1     37. The article of claim 36, wherein generating the performance report includes:

2              selecting an information item based on the comparison of the performance  
3              measurement; and  
4              adding the selected information item to the performance report.

1     38. The article of claim 36 wherein:

2              analyzing the collected data includes determining the number of performance  
3              measurements that are within the range of acceptable values; and  
4              selecting the information item is further based on the number of performance  
5              measurements that are within the range of acceptable values.

- 1       39. The article of claim 36 wherein the item of information includes a natural language  
2       sentence.
- 1       40. The article of claim 39 wherein the item of information includes at least one of a  
2       measurement value or the threshold value.
- 1       41. The article of claim 39 wherein at least part of the natural language sentence is enhanced  
2       to draw attention to the sentence.
- 1       42. The article of claim 41 wherein the part of the natural language sentence is enhanced by  
2       at least one of bold typeface, italicized typeface, colored typeface, underlining, and a  
3       different font size.
- 1       43. The article of claim 36 wherein the item of information includes a graphical display.
- 1       44. The article of claim 39 wherein at least part of the natural language sentence is a  
2       hyperlink to more detailed information about a section of the sequence of performance  
3       measurements.

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